

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
29 January 2004 (29.01.2004)

PCT

(10) International Publication Number
WO 2004/009055 A1

- (51) International Patent Classification⁷: A61K 9/00
- (21) International Application Number: PCT/US2003/002545
- (22) International Filing Date: 29 January 2003 (29.01.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
PCT/US02/23184 23 July 2002 (23.07.2002) US
- (71) Applicant (for all designated States except US): MICROBAN PRODUCTS COMPANY [US/US]; 11515 Vanstory Drive, Suite 110, Huntersville, NC 28078 (US).
- (72) Inventors: and
- (75) Inventors/Applicants (for US only): HANRAHAN, William, D. [US/US]; 9138 Whittel Place, Charlotte, NC 28216 (US). ONG, Ivan, W. [SG/US]; 5425 Chedworth Drive, Charlotte, NC 28210 (US). PARIANO, Laurie, J. [US/US]; 1615 Foxtrot Drive, Charlotte, NC 28269 (US).
- (74) Agents: DOUGHERTY, Ralph, H. et al.; Dougherty, Clements & Hofer, Suite 300, 1901 Roxborough Road, Charlotte, NC 28211 (US).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ANTIMICROBIAL MELAMINE RESIN AND PRODUCTS MADE THEREFROM

(57) Abstract: The present invention relates to melamine resins having incorporated therein one or more antimicrobial agents, where one of the antimicrobial agents is an isothiazolone based compound. The melamine resin is compounded with the antimicrobial as a finely divided powder diluted in a liquid forming a dispersion. The compounded melamine resin is useful for making melamine base decorative laminates used in flooring, countertops, dinnerware and other applications wherein a tough, mar resistant surface having bactericidal properties is required.

WO 2004/009055 A1

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/02545

A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A 61 K 9/00.

US CL : 424/400-405,411.1,413;428/907;442/123-125;106/2,15.05,38.2.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
U.S. : 424/400-405,411.1,413;428/907;442/123-125;106/2,15.05,38.2.

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
PCT 02/23184, PALM

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
EAST

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 6,071,542 A (TANIMOTO et al.) 06 June 2000, see entire document.	1-10
Y	US 6,248,342 B1 (TROGOLO et al.) 19 June 2001, see entire document.	1-10
A	JP 06198607 A (MARUYAMA SANGYO KK) 19 JULY 1994, see entire document.	1-10

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T"

later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X"

document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y"

document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&"

document member of the same patent family

Date of the actual completion of the international search

21 March 2003 (21.03.2003)

Name and mailing address of the ISA/US

Commissioner of Patents and Trademarks
Box PCT
Washington, D.C. 20231

Facsimile No. (703)305-3230

Date of mailing of the international search report

01 APR 2003

Authorized officer

Terrel Morris

Telephone No. 703-308-0661